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SUBJECT: Testing for the Cryptologic Aspects of ESP (an initial report)

I. PURPOSE:

in their subsequent reports
will be

The purpose of the ESP experiments herein described is threefold:

- A. To determine what effect human extra-perceptive capabilities, temporarily categorized as telepathy and clairvoyance, could have on the COMSEC posture of the United States. The prime target areas being considered are:

- (1) Code and cipher keying materials and encrypted text
- (2) Underlying plain text of encrypted messages
- (3) Knowledge of message originators or processors

B. To determine what factors enhance the phenomena known as telepathy and clairvoyance and what factors detract from its operation. Factors thought by researchers to contribute to performance success are listed in appendix A. Those included in preliminary tests and fully controlled tests are indicated by asterisks. It is hoped that knowledge of such factors will provide useful defensive security knowledge, should a COMSEC threat be realized in this area.

C. To find talented subjects so that A and B above can be determined.

II. EXPERIMENTAL MATERIAL:

It was decided at an early stage in the project that combinations of code groups and their meanings would be used as target material for *the first of* the tests. The reasons for their choice were:

- A. It made the tests related to the Agency mission. and in particular to the testing of our most vulnerable systems, the two-part operations code.
- B. By using combinations, it would be possible to obtain 100 guesses out of only 50 transmissions. It was considered that the resulting abbreviation of each testing session would inhibit the decline factor which has so often detracted from the results of previous parapsychological tests.
- C. Subjects could be convinced that the test involved a real Agency problem which immediately increased interest and attention.
- D. The material permitted flexibility. Symbols or meanings having idiosyncratic significance for the subject could be isolated, which permitted some tailoring of the test to the personality of the subject.

GROUP-1
Excluded from automatic
downgrading and
declassification

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E. Code group-meaning provided a constant context, a fixed environmental condition or relationship.

F. It was not difficult to adapt the material to statistical procedures already established in prior psychological and parapsychological research.

III. PRELIMINARY TESTS - (Purpose, Method)

The purpose of the preliminary tests was to test the test, and thereby, to ascertain if it were a useful tool. Those who acted as percipients (receivers) in the preliminary tests were young college graduates, about 40% of them male and about 60% female. The groups tested were from virtually every state in the union. The attitude toward the test was typically one of considerable interest combined with an ambivalent hope-fear attitude of individuals toward exhibiting the phenomena themselves.

A. Randomness - The order of the 50 transmissions was put into a random matrix such as that in appendix B1. The random pattern itself was chosen by the tester from available Agency produced crypto-material. (Since only 5 possible combinations of code groups and meanings were used and each future combination was automatically designated A, B, C, D, or E, these letters rather than the actual combinations themselves were randomized). The randomized matrix was kept in a safe prior to the test to preclude access by anyone, except the tester and the transmitter themselves. The combinations were randomized at the last minute as a further safeguard. (appendix B2).

B. Conditioning - The percipients were given an ESP pep talk before the test to heighten their enthusiasm, and an attempt was made to have the students verbalize their thoughts on the subject in order to enhance the conditions of normal communications in the hope that channels of unusual communications would thereby also be enhanced. Students were encouraged to choose code group meanings which had significance to them. Although in one session the transmitter was permitted to establish the timing of the transmissions, this was found to make the test too lengthy. It was finally decided that transmitting at a steady 10 second interval was most comfortable for all concerned.

C. Physical conditions and controls - During the best controlled preliminary test, the percipients were located in a room about 40 feet away from the transmitter who was in an outside hallway in an alcove (see appendix C). There was a monitor posted with the percipients and with the transmitter. Timing was passed by word of mouth from a monitor who was stationed with the transmitter.

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D. Experimental Controls - In order to separate those who have a more active ESP capability from those who might not, a simple test was designed with no stringent controls. The symbols are the same as those of the Rhine cards, but in this test 5 love-hate symbols (cross, swastika, heart, U.S. flag, dove) were substituted for the usual symbols. It was decided that any one who achieved 12 or more correct guesses or 9 or less correct guesses would be included in the experimental group. It is interesting to note that the two symbols which received best, even by subjects who only guessed 5 or 6 correct, were the cross (22% of the correct guesses) and the U.S. flag (20% of the correct guesses), followed by the swastika (18% of the correct guesses).

E. Results - In this test, each combination of code group and code meaning was counted as two guesses. The mean chance error (MCE) for 100 guesses where the possibilities are 1 in 5 is 20 correct (although it developed that the actual mean for 35 and 3500 guesses was less than 18%). The expected standard deviation (SD) is plus-or-minus 4. All of this indicates that those subjects who scored more than 24 correct guesses show a deviation in favor of the ESP hypothesis. Correct combinations were also studied statistically. The same laws apply; however, the expectancy in this case is for the MCE to be 2 correct with an SD of 1 in either direction.

(1) The 12 members of the experimental group showed a total positive deviation of 26 hits above the expected SD of 60 for 12 people.

(2) The 10 members of the control group showed a total positive deviation of 5 hits above the expected SD of 50 for 10 people. The control group also showed double the total negative deviation of the positive group below the SD--a minus 8.

(3) Within the experimental group there were 4 individuals who scored double or more the number of correct hits expected. One of these individuals was [redacted] who scored 29 correct guesses on the code groups or meanings -- more than two times the standard deviation. This subject also scored an unusually high number of hits on guessing combinations -- 6 instead of the expected 2.

(4) Within the control group no extraordinary positive deviation occurred except where one subject guessed 5 combinations correctly; however, 5 fairly significant negative deviations from MCE were scored: two of minus 7 and three of minus 5.

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(3) Timing was provided by using synchronized electric clocks activated by a single short phone call from the tester who stayed with the transmitter (under monitoring). The ten second interval was maintained by the monitor at each end verbalizing each numbered interval.

(4) The tests were marked by [] or another monitor at the receiver site.

(5) 5 or 10 warm-up questions were used at the insistence of the receiver.

(6) In test two the receiver was known to be having a personal disagreement with the transmitter but the test was allowed to continue in order to observe the effect this might have.

(7) In test three another transmitter was added to the first transmitting in hopes that this might offset any negative attitudes that might have carried over from the conditions existing under test Nr. 2. Note that this transmitter was retained because Miss [] had such good rapport with her during the preliminary tests. The receivers room was subjected to jackhammer-like noises. The transmitter site was also subject to temporary disruptive noise (door knocking).

(8) Test three was conducted under extremely adverse conditions. The receiver was under constant scrutiny by 2 guest observers.

CONTROLLED TEST RESULTS:

A. Under preliminary test conditions where test conditions were not strictly controlled, Miss [] scored a total of 88 correct guesses of code groups and code meanings (individually tabulated) out of a total of 300 guesses. With a standard deviation from MCE being 60, Miss [] scored more than 4 times the expected deviation. Similarly the subject scored correctly on 19 combinations where MCE is 6 and the SD 2 or more than 6 times the expected rate.

B. Under fully controlled conditions, Miss [] still continued to score significantly but lower than under the preliminary tests. With the same number of total guesses involved as in the preliminary tests Miss [] made 77 correct guesses for individual code group and meaning on about 2.4 times the expected rate. The subject also guessed 10 combinations instead of the expected 6 or twice the expected rate.

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C. It should be noted that Miss [] scored highest in both categories on the last test (the most difficult in terms of conditions). On this occasion she was asked if she thought she had gotten any one combination correct more often than any other. She correctly replied SCO-attack which constituted 4 of the 6 correct combinations which she guessed on the third test. (In two preliminary tests Miss [] had duplicated this feat. In both instances the code meaning had been the word retreat. In the first such instance Miss [] guessed 6 combinations correctly, 5 of which contained the meaning "Retreat". The total combinations involved were the usual 50. Under similar conditions Miss [] again guessed 5 combinations correctly, 4 of which contained the meaning "Retreat").

D. It should be noted that on the occasion of her final test, Miss [] was asked if anything disturbed her during the test. (The transmitters had estimated that around question 24 there had been a disturbing series of knocks on the door of their room. This question was checked off on the answer sheet). Miss [] replied that around question 20 she felt like giving up -- an intriguing coincidence, the exact same thoughts were going through the transmitter's mind at that time.

VII. CONTROLLED TEST CONCLUSION:

A. The test methods used, if used carefully, are probably effective for the isolation and further testing of some persons who have a measurable ESP capability.

B. Since Miss [] scored more significantly under conditions which were more competitive and encouraged greater intragroup communication, these conditions should probably be given more emphasis in future tests.

C. On three tests (two preliminary and one fully controlled) Miss [] seemed to display an affinity for a particular code meaning. If such an affinity should prove to have any durability, it could be of measurable benefit to cryptanalysis.

D. Since Miss [] scored more significantly when there were two transmitters, the possibility of enhancing percipient performance by using groups of transmitters should be given greater emphasis. In this connection, it might also be beneficial to score groups of receivers in a collective manner, i.e., if 3 out of 5 people guess combination A, it is considered the group answer.

E. It is considered that other test methods involving more realistic situations might measurably enhance test results. It appears that personality clashes between transmitter and receiver tend to cause a lack of interest on the part of the persons concerned, which may result in a near average performance by even talented subjects.

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F. Miss [] ability to produce near random guesses of target material appeared to be considerably above average.

G. The above test results indicate that the human ESP capability could be a significant threat to U.S. COMSEC in all of the categories indicated in paragraph 1A. For this reason the National Security Agency cannot afford to remain ignorant of the scientific advances in utilizing or developing this field.

VIII. RECOMMENDATION:

A. It is strongly recommended that the Agency seek to acquire all available information on the subject of ESP research and that our own modest testing effort be permitted to continue and even to expand slightly in the direction of greater subject detection and testing.

B. It is recommended that the Agency's psychological testing program be amended to include a test such as that reported above which would serve two purposes.

(1) To isolate "super guessers" or persons who have a knack for cryptanalysis.

(2) To isolate persons who have a high ESP potential.

C. It is recommended that future ESP tests concentrate on the collective testing and scoring of groups of receivers and transmitters.

D. It is recommended that some real material be included for ESP targeting in future tests.

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APPENDIX A

Factors Considered to Benefit the Operation of ESP Tests:

- xxx 1. Creating a realistic situation.
- xxx 2. Getting transmitter and receiver to concentrate on sending and receiving with each person considering the other as the intended target.
- xxx 3. Conditioning the subjects to react to the material properly - to consider the test important.
- xx 4. Testing subjects who have demonstrated an ESP capability by some degree.
- xxx 5. Give feeling of success to sender and receiver by praising positive and negative deviations.
- xxx 6. Transmitting of targets in some sort of context or natural environment.
- xx 7. Limiting each testing session to a short period.
- xxx 8. Building on success by eliminating unsuccessful materials or conditions and conserving successful ones.
- xxx 9. Trying to open as many channels of normal human communications as possible - and opening them wide!
- xx 10. Synchronization of sender and receiver.
- : 11. Using groups of transmitters.
- 12. Testing groups of receivers in some collective way so as to discover even slight trends in responses which defy chance.

Included in preliminary tests x

Included in controlled tests xx

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APPENDIX B

I. Initial Random Matrix of code group-code meaning combination positions derived from Agency Random sequences.

<u>Position of Transmitted Group</u>	<u>Agency Random Sequence</u>
1	A = WTA - Women and Children
2	E
3	B
4	C
5	A
6	A
7	A
.	.
.	.
50	B

II. Combinations receive their A, B, C, D, and E designations by means of two more random sequences used to mate the members of the combination, below.

III. After an arbitrary A, B, C, D, or E designator is appended to each group and meaning, a random sequence is used to determine how they are mated. A separate random sequence is used to rearrange the order of code groups and code meanings. If for example, E should be the first of five letters to occur in the random sequence assigned to code groups, (below) would be the first partner of combination A. Similarly, if B should be the first letter to occur in the random sequence assigned to the meanings, then Women and Children would be the code meaning assigned to combination A. The same method is used to determine the remainder of the combinations to be transmitted.

SCO	Attack	A	Code Combination A = WTA Women and Children
MRV	Target	B	
BXY	Killed	C	
PLK	Women and Children	D	
WTA	Intelligence	E	

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Participants of the AD/HOC testing group
include:

Mr.

Dr.

Miss

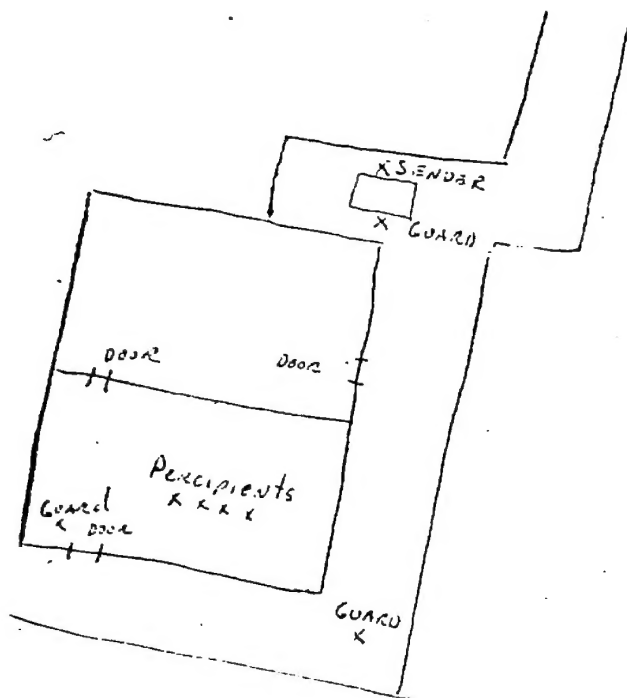
Mrs.

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PRELIMINARY TEST ARRANGEMENT:

APPENDIX C



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